**CLAIMS:**

What is claimed is:

1. A method in a data processing system for waking a remote data processing system, wherein an existing connection is present between the data processing system and remote data processing system, the method comprising:

creating a data packet using a previously acknowledged sequence number for the existing connection, wherein the previously acknowledged sequence number was returned as an acknowledgement of data previously sent to the remote data processing system;

placing wake up data in the data packet, wherein the wake up data causes the remote data processing system to wake up from a sleep mode when received by the remote data processing system; and

sending the data packet, including the previously acknowledged sequence number and the wake up data, to the remote data processing system using the existing connection.

2. The method of claim 1, wherein the existing connection is a transmission control protocol connection.

3. The method of claim 1 further comprising:

responsive to receiving an acknowledgement of the data packet from the remote data processing system, transmitting data to the remote data processing system.

4. The method of claim 1, wherein the creating step is initiated in response to a time-out occurring with respect to data transmission with the remote data processing system.

5. The method of claim 1, wherein the wake up data includes a media access control address of the remote data processing system.

6. The method of claim 1, wherein the wake up data includes a MAC address for the remote data processing system and further comprising: exchanging MAC addresses between the data processing system and the remote data processing system when establishing the existing connection.

7. A data processing system for waking a remote data processing system, wherein an existing connection is present between the data processing system and remote data processing system, the data processing system comprising:

a bus system;

a communications unit connected to the bus system;

a memory connected to the bus system, wherein the memory includes a set of instructions; and

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to create a data packet using a previously acknowledged sequence number for an existing connection, wherein the previously acknowledged sequence number was returned as an acknowledgement of data previously sent to the remote data processing system; place wake up data in the data packet in which the wake up data causes the remote data processing system to wake up from a sleep mode when received by the remote data processing system; and send the data packet, including the previously acknowledged sequence number and the wake up data, to the remote data processing system using the existing connection.

8. A data processing system for waking a remote data processing system, wherein an existing connection is present between the data processing system and the remote data processing system, the data processing system comprising:

creating means for creating a data packet using a previously acknowledged sequence number for the existing connection, wherein the previously acknowledged sequence number was returned as an acknowledgement of data previously sent to the remote data processing system;

placing means for placing wake up data in the data packet, wherein the wake up data causes the remote data processing system to wake up from a sleep mode when received by the remote data processing system; and

sending means for sending the data packet, including the previously acknowledged sequence number and the wake up data, to the remote data processing system using the existing connection.

9. The data processing system of claim 8, wherein the existing connection is a transmission control protocol connection.

10. The data processing system of claim 8 further comprising:

transmitting means, responsive to receiving an acknowledgement of the data packet from the remote data processing system, for transmitting data to the remote data processing system.

11. The data processing system of claim 8, wherein the creating means is initiated in response to a time-out occurring with respect to data transmission with the remote data processing system.

12. The data processing system of claim 8, wherein the wake up data includes a media access control address of the remote data processing system.

13. The data processing system of claim 8, wherein the wake up data includes a MAC address for the remote data processing system and further comprising: exchanging MAC addresses between the data processing system and the remote data processing system when establishing the existing connection.

14. A computer program product in a computer readable medium for waking a remote data processing system, wherein an existing connection to the remote data

processing system is present, the computer program product comprising:

first instructions for creating a data packet using a previously acknowledged sequence number for the existing connection, wherein the previously acknowledged sequence number was returned as an acknowledgement of data previously sent to the remote data processing system;

second instructions for placing wake up data in the data packet, wherein the wake up data causes the remote data processing system to wake up from a sleep mode when received by the remote data processing system; and

third instructions for sending the data packet, including the previously acknowledged sequence number and the wake up data, to the remote data processing system using the existing connection.

15. The computer program product of claim 14, wherein the existing connection is a transmission control protocol connection.

16. The computer program product of claim 14 further comprising:

fourth instructions, responsive to receiving an acknowledgement of the data packet from the remote data processing system, for transmitting data to the remote data processing system.

17. The computer program product of claim 14, wherein the creating step is initiated in response to a time-out

occurring with respect to data transmission with the remote data processing system.

18. The computer program product of claim 14, wherein the wake up data include a media access control address of the remote data processing system.

19. The computer program product of claim 14, wherein the wake up data includes a MAC address for the remote data processing system and further comprising: exchanging MAC addresses between the data processing system and the remote data processing system when establishing the existing connection.